

Foreword

This volume is the proceedings of "The Eleventh Symposium on Coordinated Observations of the Ionosphere and the Magnetosphere in the Polar Regions" which was held at the National Institute of Polar Research (NIPR) from January 25th to 27th, 1988. The NIPR annual symposia are devoted to discussing significant scientific results of studies on the ionosphere and the magnetosphere in the polar regions. The eleventh symposium consisted of the following seven sessions: 1) MAP observation in Antarctica, 2) Disturbance in the magnetosphere and ionosphere, 3) Geomagnetically conjugate observation, 4) Aurora and related phenomena, 5) ULF wave phenomena, 6) ELF-HF wave phenomena, 7) Future program for observation in the polar regions.

The present volume contains 15 selected scientific papers among 55 individual contributions presented at the symposium. There papers may be classified into the following groups, *i.e.*, 1) Storm sudden commencement, 2) Pi 1-2 magnetic pulsation, 3) ELF-VLF wave, 4) Auroral dynamics, 5) Antarctic stratosphere, 6) Practical future plan.

It is hoped that this Proceedings of the NIPR Symposium on Upper Atmosphere Physics will be valuable to those who are interested in the ionospheric and magnetospheric phenomena in the polar regions and also to those who are concerned with Antarctic research activities.

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